

Customer No.: 31561
Application No.: 10/708,229
Docket No.: 7804-US-PA

To the Claims:

1. (currently amended) A line inversion drive device for a thin film transistor liquid crystal display, ~~embedded in a clock controller~~, comprising:

a data inversion circuit, embedded in a clock controller, for receiving a data signal, said data inversion circuit, responsive to an inversion control signal, determining whether to invert said data signal and outputting a display signal.

2. (currently amended) A line inversion drive circuit for a thin film transistor liquid crystal display, comprising:

a clock controller including a data inversion circuit for receiving a data signal and a clock control device, said data inversion circuit being coupled to said clock control device, said data inversion circuit responsive to an inversion control signal determining whether to invert said data signal and outputting a display signal; and

a data line driver, coupled to said data inversion device, for receiving a group of reference voltages, said data line driver, responsive to said group of reference voltages and said display signal, driving a plurality of data lines of said thin film transistor liquid crystal display.

3. (currently amended) The line inversion drive circuit for a thin film transistor liquid crystal display of claim 2, wherein said data ~~inversion circuit~~ line driver further comprises a Gamma compensation circuit coupled to said data inversion circuit to compensate said display signal.

4. (currently amended) A line inversion drive circuit for a thin film transistor liquid crystal display, comprising:

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~~a data inversion circuit for receiving a data signal;~~

a clock controller[[.]] including a data inversion circuit for receiving a data signal,
~~the clock controller coupled to said data inversion circuit,~~ for generating an inversion
control signal to said data inversion circuit to determine whether to invert said data signal,
said data inversion circuit, responsive to said inversion control signal, outputting a display
signal; and

a data line driver, coupled to said data inversion circuit, for receiving a group of
reference voltages, said data line driver, responsive to said group of reference voltages
and said display signal, driving a plurality of data lines of said thin film transistor liquid
crystal display. [[.]]

5. (currently amended) A line inversion drive device for a thin film transistor
liquid crystal display, comprising:

~~a data inversion circuit for receiving a data signal; and~~

a clock controller[[.]] including a data inversion circuit for receiving a data signal,
~~the clock controller coupled to said data inversion circuit,~~ for generating an inversion
control signal to said data inversion circuit to determine whether to invert said data signal,
said data inversion circuit, responsive to said inversion control signal, outputting a display
signal.

6. (currently amended) A line inversion drive method for a thin film transistor
liquid crystal display to drive a plurality of data lines, comprising the steps of:

receiving an input signal and a group of reference voltages;

determining whether to invert said input signal, responsive to an inversion control

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signal, and output a display signal;
compensating said display signal; and
driving said plurality of data lines responsive to said compensated display signal
and said group of reference voltages.

7. (original) The line inversion drive method for a thin film transistor liquid
crystal display of claim 6, wherein said step of compensating said display signal is
performed by Gamma compensation.